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***Luzea* and *Pseudomedon* in the Eastern Palaearctic region, with
additional records from the West Palaearctic
(Coleoptera: Staphylinidae: Paederinae)**

V. ASSING

A b s t r a c t : *Luzea valida* nov.sp. (China: Zhejiang) and *Pseudomedon schuelkei* nov.sp. (China: Yunnan), the first representatives of their genera from the East Palaearctic region east of Middle Asia, are described and illustrated. Additional records eight species of *Luzea* BLACKWELDER 1912 and *Pseudomedon* MULSANT & REY 1878 are reported. *Luzea* is now represented by nine and *Pseudomedon* by eleven described species in the Palaearctic region.

K e y w o r d s : Coleoptera, Staphylinidae, Paederinae, *Luzea*, *Pseudomedon*, Palaearctic region, taxonomy, new species, additional records.

Introduction

The paederine genera *Luzea* BLACKWELDER 1912 and *Pseudomedon* MULSANT & REY 1878 of the subtribe Medonina were revised recently (ASSING 2008, 2009, 2010). According to ASSING (2010), *Luzea* was previously represented by eight species, all of them confined to the West Palaearctic including Middle Asia (ASSING 2010). *Pseudomedon* comprised 19 species, nine unrevised species of doubtful generic affiliations from the Afrotropical and the Australian regions and ten revised species from the West Palaearctic and Middle Asia. One of the Western Palaearctic species is adventive also in South America (ASSING 2009).

Material of Medonina recently collected in China and made available to me by Michael Schülke (Berlin) contained one species of *Luzea* and one of *Pseudomedon*, the first representatives of these genera to become known from China and from the East Palaearctic east of Middle Asia. Aside from their descriptions, additional records of West Palaearctic species are presented, based on material that has been examined since the previous revisions.

Material and methods

The material referred to in this study is deposited in the following public institutions and private collections:

BMNH	The Natural History Museum, London (R. G. Booth)
MNHUB.....	Museum für Naturkunde der Humboldt-Universität Berlin (J. Frisch, J. Willers)
NHMD	Natural History Museum Denmark/ University of Copenhagen Zoological Museum (A. Solodovnikov)
NHMW	Naturhistorisches Museum Wien (H. Schillhammer)
cAss.....	author's private collection
cFel	private collection Benedikt Feldmann, Münster
cPüt	private collection Andreas Pütz, Eisenhüttenstadt
cSch.....	private collection Michael Schülke, Berlin
cWun.....	private collection Paul Wunderle, Mönchengladbach

The morphological studies were conducted using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena). For the photographs a digital camera (Nikon Coolpix 995) was used.

Head length was measured from the anterior margin of the frons to the posterior margin of the head, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra, and the length of the aedeagus from the apex of the ventral process to the base of the aedeagal capsule.

Genus *Luzea* BLACKWELDER

Luzea nigrifula (ERICHSON 1840)

Material examined: Spain: Castilla-La Mancha: 5 exs., Villapalacios, Rio Gualdamena, 38°35'N, 2°40'W, 735 m, 21.VI. 2003, leg. Lencina (cAss). Valencia: 1 ex., Alicante, Pinoso, Olmeda del Prado, 565 m, flight intercept trap, 26.-VII.-5.VIII.2008, leg. Lencina (cAss). Murcia: 7 exs., Cieza, Rambla del Judío, 38°21'N, 1°27'W, 355 m, at light, 4.VII.2009, leg. Lencina & Albert (cAss). Andalucía: 1 ex., Cádiz, 15 km NW Algeciras, 36°13'N, 5°33'W, 25 m, loamy pasture, under stone, 27.XII.2009, leg. Assing (cAss); 6 exs., Cádiz, 20 km N Tarifa, 36°09'N, 5°38'W, 100 m, loamy shore of reservoir, flood debris, sifted, 29.XII.2009, leg. Assing & Wunderle (cAss, cWun). Italy: Marche: 1 ex., Monti Sibillini, Foce (AP), 950 m, 25.V.2003, leg. Angelini (NHMD). Puglia: 1 ex. [brachypterous], Gargano, M. Barone (FG), oak forest, 4.III.2000, leg. Angelini (NHMD); 1 ex. [brachypterous], Gargano, Vieste (FG), 2.II.1999, leg. Angelini (NHMD); 4 exs., estuary of Ofanto river (FG), 2.IV.2006, leg. Angelini (NHMD); 15 exs. [brachypterous?], estuary of Lato river, 14.IX.2003, leg. Angelini (NHMD, cAss). Lazio: 2 exs., Cilento, M. Sacro (SA), 1500 m, 29.VI.1994, leg. Angelini (NHMD). Basilicata: 3 exs., L. S. Giugliano, ponte Cagnolino (MT), light trap, 28.VI.1993, leg. Angelini (NHMD); 1 ex., Matera, Gravina F. Bradano, light trap, 26.VII.1993, leg. Angelini (NHMD); 2 exs., Matera, 7.II.1998, leg. Angelini (NHMD); 1 ex. [brachypterous], Latronico (PT), oak forest, 30.XII.1995, leg. Angelini (NHMD); 1 ex., bosco di Policoro (MT), Sinni river, 1.III.1998, leg. Angelini (cAss); 1 ex., Tursi (MT), meadow, 28.XII.1997, leg. Angelini (NHMD). Calabria: 7 exs. [brachypterous], Aspromonte, Africo (RC), pasture, 11.III.2000, leg. Angelini (NHMD, cAss); 14 exs. [brachypterous], Aspromonte, San Luca (RC), pasture, 12.III.2000, leg. Angelini (NHMD); 1 ex. [brachypterous], Aspromonte, Samo (RC),

250 m, 12.III.2000, leg. Angelini (NHMD). *S a r d e g n a* : 1 ex., Santa Margherita Pula (CA), at light, 20.VII.2005, leg. Crovato (NHMD). *S i c i l i a* : 1 ex. [brachypterous], Maletto (ME), ctr. S. Venera, 8.V.2007, leg. Angelini (NHMD); 6 exs. [elytral length intermediate], bosco Ficuzza (PA), 30.VI.2000, leg. Angelini (NHMD).

C o m m e n t : This wing-polymorphic species is widespread in the Western Mediterranean region.

***Luzea graeca* (KRAATZ 1857)**

M a t e r i a l e x a m i n e d : *Albania*: 7 exs., Kolonjë, 3 km ENE Leskovik, 40°10'N, 20°37'E, 990 m, flooded calcareous pasture with stones, under stones, 28.V.2010, leg. Assing (cAss). *Turkey*: *K a s t a m o n u* : 17 exs., 40 km NW Kastamonu, NE Azdavay, W Yeşilpınar, 41°42'N, 33°28'E, 1090 m, flooded field, under stones, 22.III.2010, leg. Assing (cAss, cFel). *A n k a r a* : 19 exs., 57.5 km SE Bolu, ca. 20 km N Beypazarı, 40°18'N, 31°59'E, 1540 m, wet fallow near shallow pond, under stones, 28.III.2010, leg. Assing (cAss). *Iran*: *K o r d e s t a n* : 1 ex., 15 km NW Divandarreh, 5 km NE Ebrahim Abad, 35°59'N, 46°52'E, 1980 m, 4.IX.2008, leg. Frisch & Serri (cAss). *A z a r b a y j a n - e G h a r b i* : 1 ex., Takab, 3 km NE Takht-e-Soleyman, 36°38'N, 47°14'E, 2270 m, 8.IX.2008, leg. Frisch & Serri (MNHUB).

C o m m e n t : The distribution of this species ranges from Hungary in the northwest across the Eastern Mediterranean to Iran in the southeast.

***Luzea cephalica* (EPPELSHEIM 1889)**

M a t e r i a l e x a m i n e d : *Greece*: 7 exs., Egean Islands, Limnos, 1900, leg. Cameron (BMNH, cAss).

C o m m e n t : This species was previously doubtfully recorded from Greece (Thessaloniki), because this record was based on a single specimen and additional records from countries other than Ukraine were unknown (ASSING 2010). The above material confirms the presence of *L. cephalica* in Greece.

***Luzea infirma* (ERICHSON 1840)**

M a t e r i a l e x a m i n e d : *Tunisia*: 8 exs., Jerid province, 4 km NE Tozeur, 30-40 m, light-trap, 21.X.2009, leg. Lehmann (cPüt, cAss). *Egypt*: 1 ex., Sakkara, 15.IX.1933, leg. Wittmer (NHMW). *Tajikistan*: 2 ♀♀, Tigrovaya Balka reserve, downstream of Pianj river, 1.-5.VIII.2006, leg. Gurko (cSch, cAss).

C o m m e n t : The above specimens from Tunisia represent a new country record.

***Luzea lutrella* (FAUVEL 1900)**

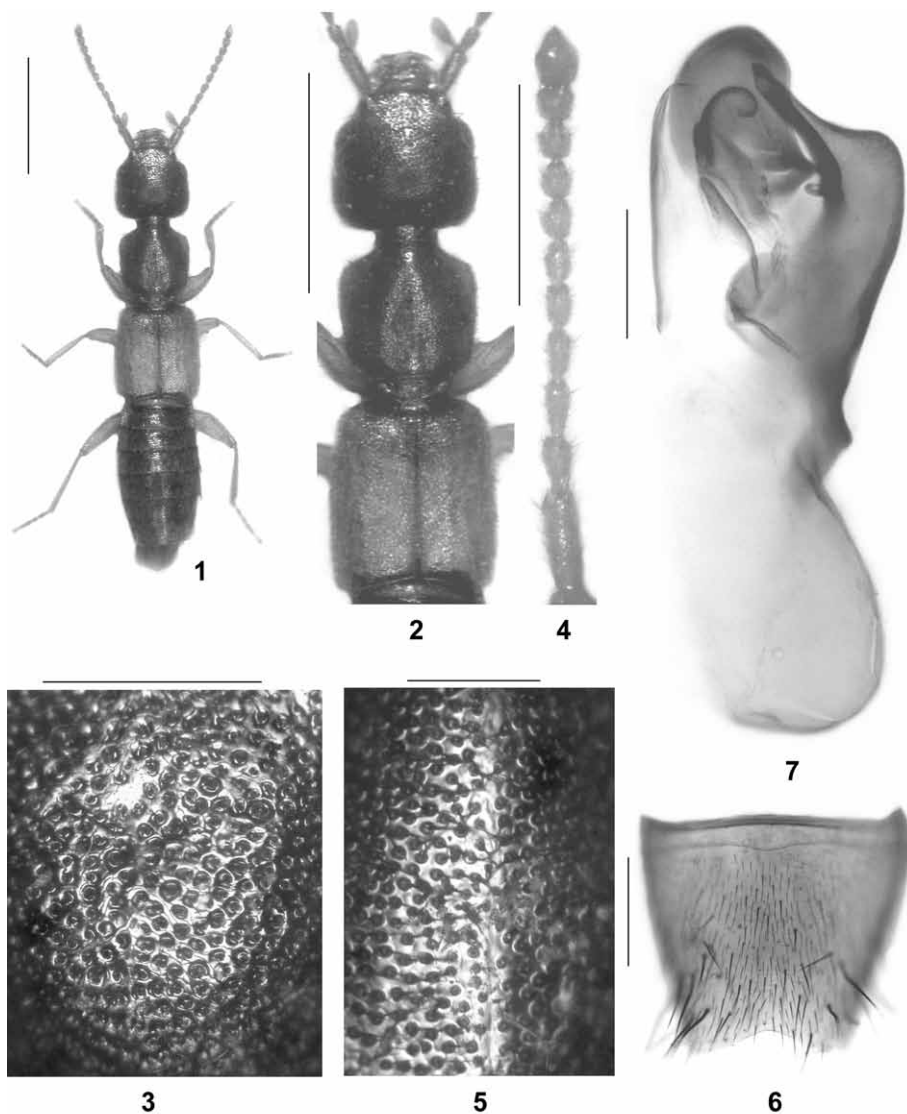
M a t e r i a l e x a m i n e d : *Israel*: 1 ex., Upper Galilee, S Ziv'on, 33°01'N, 35°25'E, 750 m, stony pasture, 8.III.2008, leg. Wrase (cSch).

C o m m e n t : This species has become known only from Israel.

***Luzea valida* nov.sp. (Figs 1-7)**

T y p e m a t e r i a l : **Holotype** ♂: "China: Zhejiang [CH07-40], Hangzhou Pref., Ping-hou island nr. Zhapu, 105 km ENE Hangzhou, 30°36'06"N, 121°08'31"E, 0 m, debris from gravel beach, 18.VI.2007, M. Schülke / Holotypus ♂ *Luzea valida* sp.n. det. V. Assing 2011" (cAss). **Paratypes**: 1 ♂ [slightly teneral]: same data as holotype (cSch).

Description: Body length 4.0-4.7 mm. Habitus as in Fig. 1. Coloration: head blackish-brown to blackish; pronotum reddish-brown to brown; elytra reddish; abdomen blackish-brown with the apex (segments VII-X) reddish; legs and antennae reddish.



Figs 1-7: *Luzea valida* nov.sp.: (1) habitus; (2) forebody; (3) median dorsal portion of head; (4) antenna; (5) median dorsal portion of pronotum; (6) male sternite VIII; (7) aedeagus in lateral view. Scale bars: 1-2: 1.0 mm; 4: 0.5 mm; 6: 0.2 mm; 3, 5, 7: 0.1 mm.

Head approximately as broad as long (Fig. 2), behind eyes subparallel or weakly dilated in dorsal view; punctuation moderately fine, dense, and defined; interstices with fine microsculpture, distinctly narrower than punctures (Fig. 3). Eyes slightly longer than half the length of postocular region. Antenna as in Fig. 4.

Pronotum approximately as broad as long, indistinctly (ca. 0.98 x) narrower than head, widest anteriorly (Fig. 2); lateral margins weakly converging posteriad in dorsal view; punctuation dense, weakly granulose, finer than that of head; interstices glossy, narrower than diameter of punctures (Fig. 5); midline with narrow impunctate band at least in posterior half.

Elytra moderately long, 1.05-1.10 times as long as, and distinctly broader than pronotum; punctuation fine and very dense. Hind wings fully developed. Metatarsomere I distinctly longer than II, but slightly shorter than the combined length of II and III.

Abdomen narrower than elytra, widest at segment V; punctuation very fine and very dense; interstices with distinct microreticulation; posterior margin of tergite VII with palisade fringe.

♂: sternite VII not distinctly modified; sternite VIII broadly and rather shallowly excised posteriorly (Fig. 6); aedeagus as in Fig. 7.

E t y m o l o g y : The specific epithet (Latin, adjective: strong) alludes to the relatively large body size of the species.

C o m p a r a t i v e n o t e s : *Luzea valida* is distinguished from all its congeners particularly by distinctly larger body size, the morphology of the aedeagus, and by its coloration. For illustrations of the external and sexual characters of other *Luzea* species see ASSING (2010).

D i s t r i b u t i o n a n d n a t u r a l h i s t o r y : The type locality is situated in Zhejiang province, western China, where the specimens were sifted from debris on a gravel beach. The paratype is slightly teneral.

Genus *Pseudomedon* MULSANT & REY

***Pseudomedon obscurellus* (ERICHSON 1840)**

M a t e r i a l e x a m i n e d : Spain: 1 ex., Murcia, Moratalla, 38°21'N, 1°46'W, 373 m, at light, 21.VII.2006, leg. Lencina (cAss); 1 ex., Andalucía, Cádiz, 20 km N Tarifa, 36°09'N, 5°38'W, 100 m, loamy shore of reservoir, flood debris, sifted, 29.XII.2009, leg. Assing (cAss). France: 1 ex., Avignon, 5.III.1953 (NHMD). Italy: 1 ex., Puglia, Ris. Nat. Le Cesine (LE), light trap, VII.1995, leg. Angelini (NHMD). Greece: 9 exs., Drama, Kato Nevrokopi, 4.VI.2007, leg. Angelini (NHMD); 1 ex., Pelopónnisos, Ahaia, Kalogria, 1.-2.V.2004, leg. Angelini (NHMD, cAss); 1 ex., Pelopónnisos, Lafka, Lake Stimfalia, 6.V.1999, leg. Angelini (NHMD).

C o m m e n t : This species is widespread in the West Palaearctic exclusive of Middle Asia and adventive also in South America (Chile).

***Pseudomedon obsoletus* (NORDMANN 1837)**

Material examined: Italy: 3 exs., Puglia, Ris. Nat. Le Cesine (LE), 23.V.1998, leg. Angelini (NHMD); 1 ex., Basilicata, Policoro (MT), 18.III.2007, leg. Angelini (NHMD). Greece: 3 exs., Xanthi, Neo Erasmio, estuary of Nestos river, 25.V.2007, leg. Angelini (NHMD); 1 ex., Karteri, swamp, 50 m, 14.V.2005, leg. Angelini (NHMD).

Comment: *Pseudomedon obsoletus* is widespread in the West Palaearctic eastwards to Kazakhstan (ASSING 2009).

***Pseudomedon schuelkei* nov.sp. (Figs 8-15)**

Type material: Holotype ♂: "China: Yunnan [CH07-05: Dali Bai Auton. Pref., Diancang Shan W Dali, 25°41'43"N, 100°06'36"E, 2927 m, litter at moist escarpment sifted, under stones, 28.V.2007, M. Schülke / Holotypus ♂ *Pseudomedon schuelkei* sp. n. det. V. Assing 2011" (cAss). Paratypes: 2♀♀: same data as holotype (cSch); 2♀♀: "China: N-Yunnan [C03-19], Dali Bai Nat. Aut. Pref., Diancang Shan, 3 km W Dali old town, creek valley and pine forest at "Cloud Road", right upper chairlift station, 25°41.1'N, 100°06.8'E, 2650-2750 m / [CH03-19] litter, pine needles, moss (dry and wet), mushrooms, 29.VIII.2003, leg. M. Schülke" (cSch, cAss); 1♂, 1♀: "China: Yunnan [CH07-30], Nujiang Lisu Aut. Pref., Nu Shan, 7 km NNW Coajian, 25°43'29"N, 99°07'57"E, 2420 m, second. pine forest with shrubs, litter, bark sifted, 11.VI.2007, M. Schülke" (cSch).

Description: Body length 4.0-4.4 mm. Habitus as in Fig. 8. Coloration: head (except for the yellowish-brown frons), pronotum, and abdomen blackish; elytra blackish-brown, with the anterior and posterior margins of the elytra indistinctly paler brown; legs dark-yellowish to dark-brown with yellowish tarsi; antennae reddish-yellow.

Pronotum weakly oblong, 1.02-1.06 times as long as broad and 1.03-1.10 times as wide as head (Fig. 9); lateral margins subparallel in dorsal view; punctation fine and dense; interstices glossy, without microsculpture (Fig. 12); midline at most with weakly evident impunctate band.

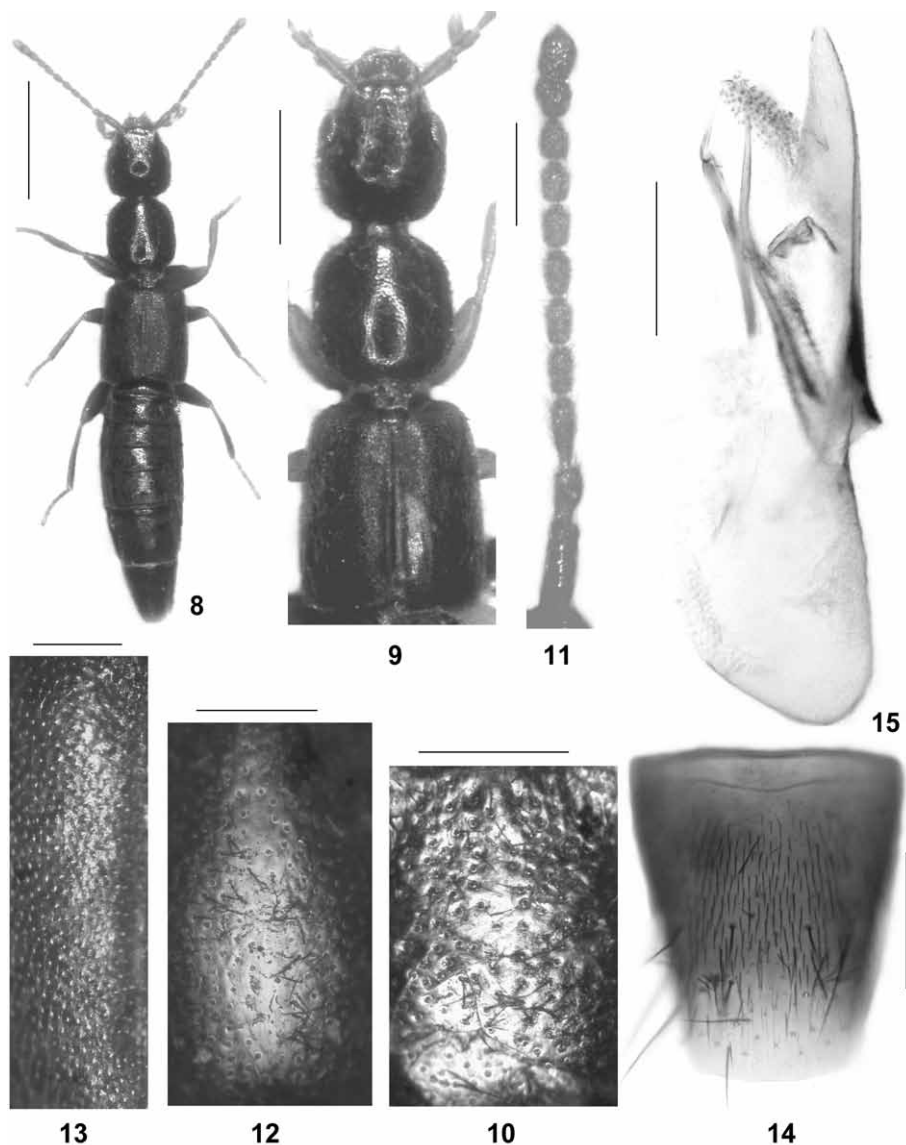
Elytra long, 1.10-1.15 times as long as, and distinctly broader than pronotum; punctation fine and very dense, weakly granulose (Fig. 13). Hind wings fully developed. Protarsomeres I-IV without apparent sexual dimorphism, in both sexes simple (i.e., not dilated). Metatarsomere I as long as the combined length of II and III, or nearly so.

Abdomen narrower than elytra; punctation very fine and dense; interstices with distinct microreticulation; posterior margin of tergite VII with palisade fringe.

♂: sternite VII not distinctly modified; sternite VIII oblong, its posterior margin evenly convex or truncate in the middle, not concave or distinctly excised (Fig. 14); aedeagus approximately 0.45 mm long, shaped as in Fig. 15.

Etymology: The species is dedicated to my friend and colleague Michael Schülke, who collected the types of both species described in the present paper.

Head weakly oblong, 1.03-1.10 times as long as broad (Fig. 9), behind eyes subparallel or weakly dilated posterad in dorsal view; punctation moderately fine, dense, and shallow; interstices without microsculpture, glossy (Fig. 10). Eyes distinctly shorter than postocular region. Antenna as in Fig. 11.



Figs 8-15: *Pseudomedon schuelkei* nov.sp.: (8) habitus; (9) forebody; (10) median dorsal portion of head; (11) antenna; (12) median dorsal portion of pronotum; (13) sutural portion of left elytron; (14) male sternite VIII; (15) aedeagus in lateral view. Scale bars: 8: 1.0 mm; 9: 0.5 mm; 11, 14: 0.2 mm; 10, 12-13, 15: 0.1 mm.

Comparative notes: In order to account for the new species, the key in ASSING (2009) is modified as follows:

- 9 Male sternite VIII with deeply V-shaped posterior incision. Aedeagus highly distinctive, with sickle-shaped ventral process (ASSING 2009: figure 6). Known only from the northern parts of the Sahara (S-Algeria, Chad)..... *P. mirei* COIFFAIT
- Male sternite VIII with shallow to moderately deep posterior incision or with simply convex posterior margin. Ventral process of aedeagus not sickle-shaped..... 9a
- 9a Head and pronotum with moderately dense and moderately fine punctation, distinctly glossy. Protarsomeres I-IV without evident dimorphism, not distinctly dilated. ♂: posterior margin of male sternite VIII simply convex or truncate; aedeagus as in Fig. 15. China: Yunnan *P. schuelkei* nov.sp.
- Head and pronotum with extremely dense and fine punctation, at most with subdued shine. Protarsomeres I-IV with sexual dimorphism, at least moderately dilated in male. ♂: posterior margin of sternite VIII at least shallowly excised. Unknown from the East Palaearctic east of Middle Asia 10

Distribution and natural history: The new species was collected in several localities in Yunnan, China. The specimens were sifted from - mostly pine - forest litter at altitudes of 2420-2927 m. Two paratypes collected in June are apparently slightly teneral.

Acknowledgements

My thanks are extended to the colleagues listed in the material section for the loan of material from their respective collections. Like so many times before, I am particularly grateful to Michael Schülke for the generous gift of the holotypes of the two species described above. Benedikt Feldmann, Münster, proof-read the manuscript.

Zusammenfassung

Luzea valida nov.sp. (China: Zhejiang) und *Pseudomedon schuelkei* nov.sp. (China: Yunnan), die ersten bekannten Vertreter ihrer Gattungen in der Ostpaläarktis östlich von Mittelasien, werden beschrieben und abgebildet. Weitere Nachweise von acht Arten der Gattungen *Luzea* BLACKWELDER 1912 und *Pseudomedon* MULSANT & REY 1878 werden gemeldet. In der Paläarktis sind *Luzea* nunmehr mit neun und *Pseudomedon* mit elf beschriebenen Arten vertreten.

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